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Pressure-Resistant Composite Material for Floors

CLAIM(S)

1) A pressure-resistant composite floor material characterized in that a load-resistant backing material is laminated on the back surface of a single veneer sheet, and in that this sheet is bonded to the surface of the base sheet of a floor material.

2) A pressure-resistant composite floor material, as cited in Claim 1, wherein said load-resistant baking material is a phenol-impregnated sheet.

3) A pressure-resistant composite floor material, as cited in Claim 1, wherein a cushion material is applied to the back surface of said load-resistant backing material before it is bonded to the surface of said base sheet.

DETAILED DESCRIPTION OF THE INVENTION

(Field of Industrial Application)

The present invention pertains to a pressure-resistant composite material for floors that is sufficiently applicable to a wooden floor to be stepped on with shoes on.

(Prior Art)

A wooden floor is generally locally damaged by the heels of high heel shoes or sharp leading edges of umbrellas when used for the areas where people walk with shoes on.

To prevent these damages, it can be considered that a synthetic resin is injected in the wooden floor material and cured or that the floor surface is coated with a hard material. In such a case, however, a feel of stepping on a wooden floor is lost, and the surface of the floor becomes slippery, giving a rise to new problems.

(Problems of the Prior Art to Be Addressed)

The present invention, to solve the aforementioned problems, attempts to present a wooden floor material that will not lose a feel of stepping on a wooden floor and will not be easily damaged even if it receives a locally concentrated load.

(Means to Solve the Problems)

As a means to solve the aforementioned problems, the present invention presents an idea of laminating a load-resistant backing material, such as a phenol resin-impregnated sheet, on the back surface of a single veneer sheet, and this sheet is bonded to the surface of a base sheet which becomes a floor material.

(Function)

Since the load-resistant backing material is laminated on the back surface of the veneer sheet, the pressure resistance is improved. And, since the surface of single veneer sheet is used as is, a feel of stepping on a wooden floor can be preserved.

(Embodiment)

The embodiment example of the present invention is explained with reference to the attached drawings.

Fig. 1 shows a first embodiment example, wherein 1 indicates the base sheet of the floor that is made of wooden material of plywood or gluam and has 2.4 – 20 mm thickness; 2 indicates the single veneer sheet of the floor material with a 0.2 – 1.5 mm thickness on whose back surface the load-resistant backing material 3 is laminated. In this case, the load-resistant backing material 3 is a 0.5 – 1.5 mm thick phenol resin-impregnated sheet.

But the material of the sheet is not limited to this but a proper material can be used.

In addition, in the past, glass fiber or rice paper was laminated on the back surface of the single veneer sheet, but this was to prevent the single veneer sheet from being cracked and was not to improve the pressure resistance.

As explained above, the single veneer sheet 2 with the load-resistant backing material 3 laminated is bonded to said base sheet 1 to construct the floor material of the present invention.

The floor sheet thus formed is significantly improved in the pressure resistance against a local impact. For example, with the prior art floor material, holes were made by the pressure less than 60 kg/ϕ8 and it was impossible to restore the floor material. With the floor material of the present invention, however, only a slight dent less than 0.3 mm was generated by 80 kg/ϕ8 pressure.

Fig. 2 shows the second embodiment example, which has likewise base sheet 1, veneer single sheet 2, and load-resistant backing material 3 laminated on the back surface of the veneer single sheet. But it is different from the embodiment example 1 in that when this load-resistant backing material 3 is bonded to said base sheet 1, a cushion member 4 is inserted.

For the cushion member 4, can be used a 0.5 – 10 mm rubber sheet or foam material or an ethylene foam material.

Fig. 3 shows the third embodiment example, wherein a 1 – 5 mm cushion member 5 is further laminated on the back surface of the base sheet of the first embodiment example or second embodiment example.

With the second embodiment example and third embodiment example, the impact from walking is reduced by the inserted cushion, and a feel of walking on is further improved.

(Advantage)

As explained above, according to the present invention, since a load-resistant baking material is laminated on the back surface of a single veneer sheet, pressure resistance against the locally concentrated load can be significantly increased; therefore, holes and dents are not easily made even if impacts are exerted by the heels of high heel shoes and some sharp items, so the floor material of the present invention can be well usable as a floor material to be walked on with shoes on. In addition, since the veneer single sheet can be used as is, a feel of walking on a wooden floor can be preserved, which is a great advantage.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows an oblique view of a disintegrated sheet of the first embodiment example of the present invention. Fig. 2 shows likewise an oblique view of a disintegrated sheet of the second embodiment example of the present invention. Fig. 3 shows an oblique view of a disintegrated sheet of the third embodiment example.

1. base sheet
2. surface veneer single sheet
3. pressure-resistant backing material

4, 5. cushion material

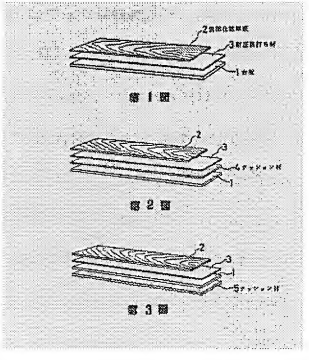

図 1 図

図 2 図

図 3 図

Translations
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